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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,791	08/22/2001	Paul Fugger	12816-026001/S 1264 SB/fi	9049

7590 03/31/2004

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EXAMINER

MAI, TAN V

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 03/31/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

09/935,791

Applicant(s)

FUGGER ET AL.

Examiner

Tan V Mai

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1-28-02, 5-8-02, 1-26-02 & 6-24-02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5-6</u> . | 6) <input type="checkbox"/> Other: _____  |

1. It is noted that the formal drawings (four sheets, signed 12/17/001) are NOT belonged to the instant application.
2. It is noted that the "priority document" which is submitted in the "TRANSMITTAL OF PRIORITY DOCUMENT UNDER 35 USC 119" (signed 12/17/01) is missing.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the terms "the clock signal" (line 10) and "the inverted clock signal" (line 12) lack antecedent bases.

As per claim 4, it is unclear whether or not "a clock signal" (line 2) is the same as "the clock signal" (claim 1, line 10).

As per claim 8, it is unclear whether or not "an inverted clock signal" (lines 14-15) is the same as "an inverted clock signal" (line 9).

As per claim 12, it is unclear whether or not "a clock signal" (line 2) is the same as "a clock signal" (claim 8, last line). Also, it is unclear whether or not "an inverted clock signal" (line 3) is the same as "an inverted clock signal" (claim 8, line 9).

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Applicants' Fig. 1 (PRIOR ART), Orgura et al (Applicants' admission Prior Art, Reference AL) or Orgura et al '978 in view of Cox et al.

As per independent claim 1, all Applicants' Fig. 1 (PRIOR ART), Orgura et al (Reference AL, Figs. 1-2) and Orgura et al '978 (Figs. 1-2) disclose the invention substantially as claimed, including: addition circuit having digital adder and saturation circuit. It is noted that the references do NOT disclose the claimed **"m most significant bits of the summation output data value being switched through only with the inverted clock signal at the input of the saturation circuit"**. However, Cox et al disclose (see Figs. 1-2) an accumulator having an adder (105) which is divided into upper portion (110) and lower portion (115). The data pass through the upper portion (110) and lower portion (115) in the **first "half-cycle"** and **second "half-cycle"**. Therefore, the result of lower portion (115) [delayed **"half-cycle"**] is considered the claimed **"m most significant bits of the summation output data value being switched through only with the inverted clock signal at the input of the saturation circuit"**. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Cox et al's **first "half-cycle"** and **second**

**"half-cycle"** feature in either Applicants' Fig. 1 (PRIOR ART), Orgura et al (Applicants' admission Prior Art, Reference AL) or Orgura et al '978, thereby making the claimed invention, because the proposed device is an addition circuit having a saturation circuit operating "n-m least significant bits" and "m most significant bits" in "clock" and "inverted clock" as claimed.

As per dependent claims 2-4 and 6, Applicants' Fig. 1 (PRIOR ART), Orgura et al (Reference AL) and Orgura et al '978 show the claimed features.

As per dependent claim 5, the claim adds "control input connected to the clock signal line via an inverter circuit". The feature is obvious to a person having ordinary skill in the art to use inverter circuit for providing the inverted clock.

Due to the similarity of independent claim 8 and dependent claim 12 to claim 5, they are rejected under a similar rationale.

Due to the similarity of dependent claims 9-11 and 13 to claims 2-4 and 6, they are rejected under a similar rationale.

7. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Applicants' Fig. 1 (PRIOR ART), Orgura et al (Applicants' admission Prior Art, Reference AL) or Orgura et al '978 in view of Cox et al as applied to claims 1 and 8 above, and further in view of Moller.

The dependent claims add the comparator(s) feature in the saturation circuit; however, the feature is old and well known in the art. For example, Moller discloses a bounds checker device having a pair of comparators. It would have been obvious to a

person having ordinary skill in the art at the time the invention was made to combine Moller's comparators feature in either Applicants' Fig. 1 (PRIOR ART), Orgura et al (Applicants' admission Prior Art, Reference AL) or Orgura et al '978 in view of Cox et al, thereby making the claimed invention, because the proposed device is an addition circuit having a saturation circuit operating "n-m least significant bits" and "m most significant bits" in "clock" and "inverted clock" as claimed.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited references are art of interest.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (703) 305-9761. The examiner can normally be reached on Tue-Fri from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are:

After-final (703) 746-7238

Official (703) 746-7239

Non-Official/Draft (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



TAN V. MAI  
PRIMARY EXAMINER